ABSTRACT OF THE DISCLOSURE

A method and apparatus are provided that generate, transmit, or receive a training sequence in a communications system, where the training sequence exhibits certain

5   desirable characteristics when used by a peak to average power constrained modulation formal.   In one embodiment, the invention includes selecting an original training sequence from a set of possible original training sequences having at least one desired property, forming a modified training sequence by modifying the original training sequence based on a corresponding modifying sequence,

10   such that the modified training sequence exhibits the desired property of the original training sequence when used in a peak to average power constrained modulation format that would otherwise impair the desired property of the original training sequence.